

- PAVEMENT**
- (P1) ON SITE EXTERIOR CONCRETE MATERIALS AND CONSTRUCTION METHODS SHALL COMPLY WITH CITY OF BISMARCK SPECIFICATIONS. ALL BACKFILL SHALL BE 95% OF STANDARD PROCTOR AT RECOMMENDED MOISTURE CONTENT. WATERLINES SHALL BE CHLORINATED, PRESSURE TESTED AND FLUSHED. TESTING IS CONSIDERED INCIDENTAL.
 - (P2) STANDARD VERTICAL FACE CURB AND GUTTER.
 - (P3) 5" CONCRETE WITH FIBERMESH AND 6" CLASS V BASE, SEE DETAIL THIS PAGE.
 - (P4) ISOLATION JOINTS WILL BE REQUIRED ALONG THE BUILDING, STOOPS AND ALL FIXED ITEMS. LEAVE JOINT 1/2" LOW AND SEAL. ISOLATION JOINTS SHALL BE SEALED USING A ONE PART POLYURETHANE TYPE SEALANT.
 - (P5) CONSTRUCTION JOINTS WILL BE PLACED TO COINCIDE WITH CONTRACTION JOINT SPACING. CONSTRUCTION JOINT FOR UNREINFORCED CONCRETE SHALL HAVE A MINIMUM 1/2" DIAMETER HALF ROUND KEYWAY OR APPROVED EQUAL. CONSTRUCTION JOINTS FOR REINFORCED CONCRETE SHALL BE 1/2" X 12" DOWELS AT 12 O/C.
 - (P6) JOINT SPACING SHALL TYPICALLY BE SPACED AT 1-1/2 TIMES THE THICKNESS OF THE PAVEMENT (MEASURED IN INCHES) IN FEET (4" S/W EQUALS 6 FOOT SPACING). IN NO CASE SHALL THE JOINT SPACING EXCEED TWO TIMES THE THICKNESS.
 - (P7) SUBGRADE PREPARATION UNDER AREAS TO BE PAVED SHALL BE 6" THICK AND SHALL COMPLY WITH CITY OF BISMARCK SPECIFICATIONS EXCEPT DENSITY SHALL BE 95% OF ASTM D 698.

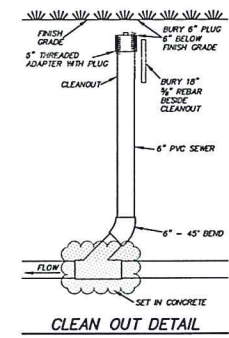
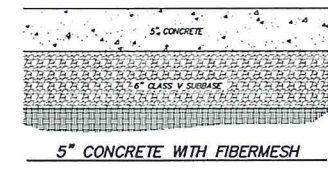
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- WATERMAIN**
- (W1) MATERIALS AND CONSTRUCTION METHODS SHALL COMPLY WITH CITY OF BISMARCK SPECIFICATIONS. ALL BACKFILL SHALL BE 95% OF STANDARD PROCTOR AT RECOMMENDED MOISTURE CONTENT. WATERLINES SHALL BE CHLORINATED, PRESSURE TESTED AND FLUSHED. TESTING IS CONSIDERED INCIDENTAL.
 - (W2) INSTALL 8"x6" TAPPING SLEEVE AND VALVE; APPROXIMATE INV. 22.9±.
 - (W3) INSTALL 330.7 LF 6" WATERMAIN AND 6"x2" TEE; INV. 23.9.
 - (W4) INSTALL 10.00 LF 6" WATERMAIN AND TEMP PLUG; INV. 24.0.
 - (W5) CONNECT TO 6"x2" TEE AND INSTALL 2" CURB STOP & BOX, 3 LF 2" WATER SERVICE, 90° BEND, AND 10 LF 2" WATER SERVICE AND TEMP PLUG; INV. 24.0. COORDINATE WITH MECHANICAL CONTRACTOR ON CONNECTION TO BUILDING.

- SANITARY SEWER**
- (S1) MATERIALS AND CONSTRUCTION METHODS SHALL COMPLY WITH CITY OF BISMARCK SPECIFICATIONS. ALL BACKFILL SHALL BE 95% OF STANDARD PROCTOR AT RECOMMENDED MOISTURE CONTENT. TESTING IS CONSIDERED INCIDENTAL. ONE FOOT OF SEPARATION SHALL BE MAINTAINED BETWEEN WATER AND SEWER SERVICES.
 - (S2) CONNECT TO EXISTING 8" SANITARY SEWER MAIN USING A 8"x6" INSERT-A-TEE; APPROXIMATE INVERT OF 8" MAIN 59.4±. VERIFY INVERT IN FIELD AND ADJUST PLANS ACCORDINGLY.
 - (S3) INSTALL 100.00 LF 6" SANITARY SEWER AT 6.440% AND 6" CLEANOUT; INV. 05.92.
 - (S4) INSTALL 100.00 LF 6" SANITARY SEWER AT 6.440% AND 6" CLEANOUT; INV. 12.36.
 - (S5) INSTALL 83.20 LF 6" SANITARY SEWER AT 6.442% AND 6" 22.5° BEND; INV. 17.72.
 - (S6) INSTALL 16.80 LF 6" SANITARY SEWER AT 6.429% AND 6" CLEANOUT; INV. 18.80.
 - (S7) INSTALL 49.50 LF 6" SANITARY SEWER AT 6.455% AND 6" CLEANOUT; INV. 22.00. COORDINATE WITH MECHANICAL CONTRACTOR FOR CONNECTION INTO BUILDING.

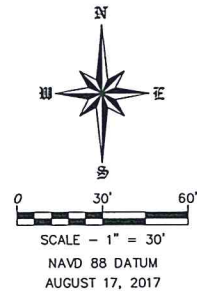
- LEGEND**
- EXISTING SANITARY SEWER
 - EXISTING WATERMAIN
 - EXISTING STORM SEWER
 - EXISTING UNDERGROUND ELECTRIC
 - EXISTING UNDERGROUND TELEPHONE
 - EXISTING UNDERGROUND GAS
 - EXISTING UNDERGROUND CABLE TV
 - EXISTING UNDERGROUND FIBER OPTIC
 - EXISTING OVERHEAD POWER
 - EXISTING MANHOLE-INLET
 - EXISTING UTILITY RISER-VAULT
 - EXISTING LIGHT-POWER POLE
 - EXISTING SIGN
 - EXISTING VALVE
 - EXISTING FIRE HYDRANT
 - EXISTING FENCE
 - EXISTING ASPHALT
 - EXISTING CONCRETE
 - EXISTING GRAVEL
 - EXISTING RETAINING WALL
 - EXISTING CONTOUR
 - EXISTING GRADE
 - PROPOSED REMOVALS
 - PROPOSED SANITARY SEWER
 - PROPOSED WATERMAIN
 - PROPOSED STORM SEWER
 - PROPOSED FENCE
 - PROPOSED VALVE
 - PROPOSED FIRE HYDRANT
 - PROPOSED CONCRETE



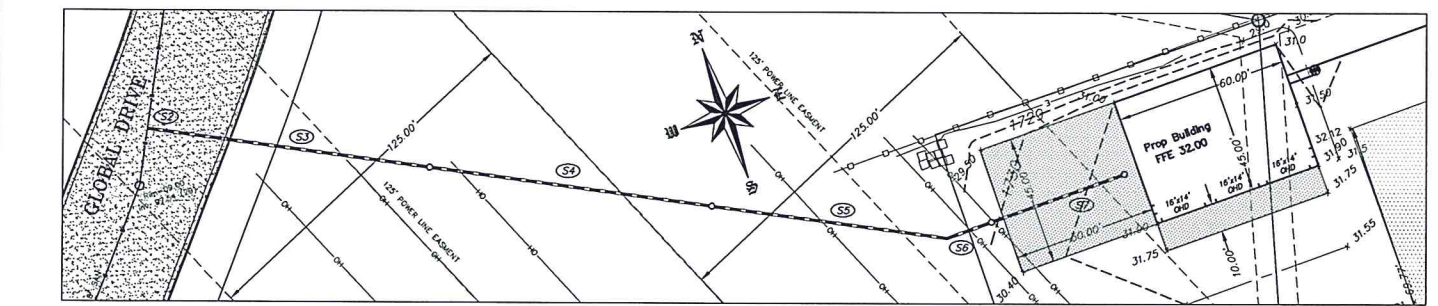
**PRELIMINARY-NOT FOR CONSTRUCTION,
RECORDING PURPOSES OR IMPLEMENTATION**

EXISTING PLANT PALETTE

SYM.	COMMON NAME	QNTY.
BR	BARBERRY	5
BX	BOXWOOD	5
J	JUNIPER	9
P	POTENTILLA	19
S	SPIREA	25



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In accordance with generally accepted construction practices the contractor will be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal business hours.

NOTICE TO CONTRACTOR
The location of existing underground utilities are shown in an approximate way only and have not been independently verified by the owner or its representatives. The Contractor shall determine the exact location of all existing utilities before commencing work, and agree to be fully responsible for any and all damages which might be occasioned by the Contractor's failure to exactly locate and preserve any and all underground utilities.

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**DIMENSION, UTILITY,
PAVING, GRADING &
LANDSCAPING**

LOT 4 & 6, BLOCK 1, MIRIUM INDUSTRIAL PARK FIRST ADDITION
BISMARCK, NORTH DAKOTA

SWENSON, HAGEN & CO.

JASON R. PETRYSZYN
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